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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,473	10/24/2001	Shaun Atchison		2311
26453	7590	12/01/2003	EXAMINER	
BAKER & MCKENZIE			OLSEN, KAJ K	
805 THIRD AVENUE			ART UNIT	
NEW YORK, NY 10022			PAPER NUMBER	

1753

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/000,473	Applicant(s) ATCHISON ET AL.	
	Examiner Kaj Olsen	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2/19/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 14 depends from claim 11, but it appears that the claim should depend from claim 13. In particular, it appears claim 14 is further defining the ribs of claim 13 (otherwise "the ribs" lacks antecedent basis). For the purpose of examination, the examiner has interpreted claim 14 as being dependent from claim 13 and not claim 11, but clarification is requested.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6, 7, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Moi et al (USP 5,938,906).
6. Moi discloses a cassette for electrophoresis gels comprising: a first planar wall member 110 having inner and outer surfaces, top and bottom edges, and lateral edges, and a second planar wall member 210 having inner and outer surfaces, top and back edges, and lateral edges,

wherein the first and second wall members are oriented generally parallel to each other and such that the inner wall of the first wall member is proximate to the inner wall of the second wall member (see fig. 2 and 5A-5D). Moi further discloses walls 240 and 250 that define a spacing means disposed between the inner walls of the first and second wall members, and is adapted to provide a space for an electrophoresis gel between the inner walls of the first and second wall members (fig. 2 and 3 and col. 3, lines 37-45). Moi further discloses a locking means that can only be locked when the walls 240 and 250 are all the down and the planar wall are substantially parallel to each other (col. 4, lines 15-25; see also the embodiments of fig. 6 and 7). That would read on applicants defined locking means.

7. With respect to the defined "primary" and "secondary" spacing elements, any number of the features of Moi (e.g. walls 240 and 250 respectively) would read on broadly defined spacing elements.

8. With respect to the shape of the protrusion, the spacing means of Moi includes space pieces that have protrusions 171-174 on them. A straight piece having a protrusion coming off in a transverse direction would read on "L-shaped" or "selectively-shaped" giving the claim language its broadest reasonable interpretation.

9. Claims 1-10, 12, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/04307 (hereafter "WO '307").

10. WO '307 discloses a cassette for electrophoresis gels comprising: a first planar wall member 11 having inner and outer surfaces, top and bottom edges, and lateral edges, and a second planar wall member 13 having inner and outer surfaces, top and back edges, and lateral edges, wherein the first and second wall members are oriented generally parallel to each other

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and such that the inner wall of the first wall member is proximate to the inner wall of the second wall member (see fig. 1-4). WO '307 further discloses walls 12 and 14 that define a spacing means disposed between the inner walls of the first and second wall members, and is adapted to provide a space for an electrophoresis gel between the inner walls of the first and second wall members (fig. 2 and 3). WO '307 further discloses a locking means that can only be locked when the walls 11 and 13 align pins with the indents 17 and the planar wall are substantially parallel (p. 6, lines 13-25). That would read on applicants defined locking means.

11. With respect to the defined "primary" and "secondary" spacing elements, any number of the features of WO '307 (e.g. elements 12, 14, 23, or 22) would read on broadly defined spacing elements.

12. With respect to the plurality of ridges 12 and 14 on the first and second walls, see fig. 2 and 3.

13. With respect to method claim 28 (those limitations not covered above), the comb 18 would constitute the set forth spacer element and WO '307 teaches removing that element (p. 7, lines 3-9).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 8, 13-20, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moi in view of WO '307.

17. With respect to claims 8 and 13-20, Moi set forth all the limitations of the claims, but did not set forth the configuration of boss and recess or the plurality of dividing ribs. WO '307 discloses in an alternate cassette that the addition of ribs 16 (with or without recesses 17) provide additional rigidity to the cassette when less rigid plastics are utilized. It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of WO '307 for the cassette of Moi in order to provide additional rigidity to the cassette.

18. With respect to claim 28, Moi set forth all the limitations of the claim (see rejection above), but did not explicitly disclose the step of removing a spacer from the cassette. The cassette of Moi utilizes a comb that would not read on the claimed spacer. WO '307 teaches in an alternate gel preparation that the comb utilized for its cassette slides through a side of the cassette allowing for the formation of gel fingers (whereas the comb of Moi only allows for wells for sample introduction). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the comb teaching of WO '307 for the cassette of

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Moi in order to allow for alternate sample introduction means. The comb of WO '307 would read on the claimed spacer and the comb is removed prior to analysis (p. 7, lines 3-9).

19. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moi or WO '307 in view of Perez (USP 6,432,262 B1).

20. Moi and WO '307 set forth all the limitations of the claims (see rejection above), but does not explicitly disclose the presence of a removable buffer chamber. Perez discloses in an alternate electrophoresis device that the use of a enclosure for gel cassettes where one end of the cassette can be mounted into a frame that is capable of holding buffer solution (paragraph bridging col. 2 and 3). This frame structure would read on the applicant's removable buffer chamber giving the claim language its broadest reasonable interpretation. Said frame allows the gel cassettes to be mounted for easy electrophoretic operations, and it would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Perez for the cassettes of Moi and WO '307 in order to facilitate the performance of the electrophoretic experiments. Any number of the elements of the frame (e.g. element 22) would constitute a positioning means for the buffer chamber.

21. Claims 25-27 are rejected as being obvious over WO '307.

22. WO '307 set forth all the limitations of the claims (see rejections above), and further taught the use of a comb 18. That comb would read on the term "removable plug" giving the claim language its broadest reasonable interpretation. WO '307 does not disclose a cassette having wells that are not the same size as each other (the wells of WO '307 are all the same size). However, one possessing ordinary skill in the art at the time the invention was being made would recognize that different types of samples would require different starting sample sizes. It

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would have been obvious to one of ordinary skill in the art at the time the invention was being made to make some of the wells larger (and consequently having some of the wells be smaller) in order to provide sufficient sample for detection of the electrophoretic bands.

Allowable Subject Matter

23. Claim 29 is allowed.

24. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose nor render obvious all the limitations of claim 29 with particular attention to the steps of removing the spacer followed by the insertion of the removable plug.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number form after-final communications is (703) 305-5408.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Kaj K. Olsen', with a long horizontal flourish extending to the right.

Kaj K. Olsen
Patent Examiner

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November 24, 2003